

WHAT IS CLAIMED IS:

1. A method for adjusting an MR image display parameter, said method comprising:

5 selecting at least one MR image from among a plurality of related
MR images;

 setting a display parameter of the at least one selected MR image;
 generating a first equation based on the set display parameter;
 and

10 setting said display parameter for at least one other of said MR
images based on the first equation.

2. A method as in claim 1 wherein said display parameter comprises a
brightness window width.

3. A method as in claim 2, further comprising:

15 changing at least one coefficient of the first equation; and
 resetting the brightness window width of the at least one other of
said of MR image based on the changed coefficient.

4. A method as in claim 1, wherein the first equation is an equation of
second or higher order.

5. A method as in claim 4, wherein the equation is a quadratic equation.

20 6. A method as in claim 1, further comprising:

 setting a second display parameter for the selected MR image;
 generating a second equation based on the set second display
parameter; and
 setting said second display parameter for at least one other of MR
images based on the second equation.

7. A method as in claim 6 wherein said second display parameter comprises a brightness window level.

8. A method as in claim 7, further comprising:

changing at least one coefficient of the second equation; and

5 resetting the window level of the at least one other of the MR images based on the changed coefficient.

9. A method as in claim 7, wherein the second equation is an equation of second or higher order.

10. A method as in claim 9, wherein the second equation of higher order
10 is a quadratic equation.

11. A computer program product configured to implement the method of claim 1.

12. A method for adjusting an MR image display parameter, said method comprising:

15 selecting at least one MR image from among a plurality of related MR images;

setting a brightness window level for the selected at least one MR image;

generating an equation based on the set window level; and

20 setting the window level of at least one other of said MR images based on the generated equation.

13. A method as in claim 12, further comprising:

changing at least one coefficient of the generated equation; and

25 resetting the window level for the at least one other of said MR images based on the changed coefficient.

14. A method as in claim 12, wherein the generated equation is an equation of second or higher order.

15. A method as in claim 14, wherein the generated equation is a quadratic equation.

5 16. A computer program product configured to implement the method of claim 12.

17. A method for adjusting an MR image display parameter, said method comprising:

displaying a plurality of related MR images;

10 selecting less than half of the displayed MR images;

 setting a display parameter window width for the selected MR image(s);

 setting a display parameter window level for the selected MR image(s);

15 generating a first equation based on the set window width(s);

 generating a second equation based on the set window level(s);

 setting a window width for MR images other than said selected MR images based on the first equation; and

 setting a window level for MR images other than said selected

20 MR images based on the second equation.

18. An MR apparatus comprising:

 a static field generating unit configured to impress a static magnetic field on an object;

25 a gradient magnetic field generating unit configured to impress a gradient magnetic field on the object;

 a transceiver unit configured to impress a radio frequency signal on the object and to receive an magnetic resonance radio frequency signal emanating from the object;

an operation unit configured to reconstruct a plurality of MR images based on the received magnetic resonance signal;

an input unit configured to select at least one among the plurality of MR images and configured to set a window width display parameter for the selected
5 at least one MR image; and

a controller configured to generate a first equation based on the set window width parameter(s) and configured to the set window width parameter(s) for at least one other of said plurality of MR images based on the first equation.

19. An MRI apparatus as in claim 18, wherein:

10 the input unit is also configured to change at least one coefficient of the first equation; and

the controller is also configured to reset the window width parameter(s) of the at least one other of said plurality of MR images based on the changed coefficient.

15 20. An MRI apparatus as in claim 18, wherein:

the input unit is also configured to set a window level display parameter of the selected MR image(s); and

20 the controller is also configured to generate a second equation based on the set window level parameter(s) and configured to set the window level parameter(s) of at least one other of said plurality of MR images based on the second equation.

21. An MRI apparatus as in claim 20, wherein:

the input unit is also configured to change at least one coefficient of the second equation; and

25 the controller is also configured to reset the window level parameter of the at least one other of said plurality of MR images based on the changed coefficient.

22. An MRI apparatus comprising:
- a static field generating unit configured to impress a static magnetic field on an object;
 - 5 a gradient magnetic field generating unit configured to impress a gradient magnetic field on the object;
 - a transceiver unit configured to impress a radio frequency signal on the object and to receive an magnetic resonance radio frequency signal emanating from the object;
 - 10 an operation unit configured to reconstruct a plurality of MR images based on the received magnetic resonance signal;
 - an input unit configured to select at least one among the plurality of MR images and configured to set a window level display parameter for the selected MR image; and
 - 15 a controller configured to generate an equation based on the set window level parameter(s) and configured to set the window level parameter(s) for at least one other of said plurality of MR images based on the equation.
23. An MRI apparatus as in claim 22, wherein:
- the input unit is also configured to change at least one coefficient of the generated equation; and
 - 20 the controller is also configured to reset the window level parameter of the at least one other of said plurality of MR images based on the changed coefficient.
24. A method for adjusting an MR image, said method comprising:
- selecting at least one from among a plurality of MR images;
 - 25 setting a brightness value for the selected at least one MR image;
 - generating an equation based on the set brightness value(s); and
 - setting the brightness value(s) of at least one other of said plurality of MR images based on the generated equation.

25. An MRI apparatus comprising:

a static field generating unit configured to impress a static magnetic field on an object;

5 a gradient magnetic field generating unit configured to impress a gradient magnetic field on the object;

a transceiver unit configured to impress a radio frequency signal on the object and to receive an magnetic resonance radio frequency signal emanating from the object;

10 an operation unit configured to reconstruct a plurality of MR images based on the received magnetic resonance signal;

an input unit configured to select at least one from among the plurality of MR images and configured to set a brightness value for the selected MR image(s); and

15 a controller configured to generate an equation based on the set brightness value(s) and configured to set the brightness value(s) of at least one other of said plurality of MR images based on the generated equation.

26. A method for automatically adjusting a display parameter for at least some of a sequence of related MR images, said method comprising:

20 manually setting at least one display parameter for a subset of a sequence of related MR images;

generating at least one equation representing each said at least one display parameter as a function of MR image location in said sequence based on the manually set parameter value(s) for said subset; and

25 using said generated equation(s) to automatically determine and set said at least one display parameter for MR images of the sequence not in said subset.

27. A method as in claim 26 wherein said at least one display parameter comprises display brightness window width.

28. A method as in claim 27 wherein the equation generated for window width is a quadratic equation defining a curve fitted to the manually set window width values of said subset.
29. A method as in claim 26 wherein said at least one display parameter
5 comprises display brightness window level.
30. A method as in claim 29 wherein the equation generated for window level is a quadratic equation defining a curve fitted to the manually set window level values of said subset.
31. A method as in claim 27 wherein said at least one display parameter
10 comprises display brightness window level.
32. A method as in claim 28 wherein the equation generated for window level is a quadratic equation defining a curve fitted to the manually set window level values of said subset.
33. A method as in claim 26 wherein said subset is automatically
15 selected from the sequence in accordance with a predetermined algorithm.
34. A method as in claim 33 wherein said subset comprises three images, one being at or near a first end of the sequence, one being at or near the second end of the sequence and one being at or near the middle of the sequence.
35. A method as in claim 26 wherein said manual setting includes
20 movements of a user input device in direction and/or magnitude that correspond to user-commanded changes in said at least one display parameter for a selected image of the subset.
36. Apparatus for automatically adjusting a display parameter for at least some of a sequence of related MR images, said apparatus comprising:
25 means for manually setting at least one display parameter for a subset of a sequence of related MR images;

means for generating at least one equation representing each said at least one display parameter as a function of MR image location in said sequence based on the manually set parameter value(s) for said subset; and

5 means for using said generated equation(s) to automatically determine and set said at least one display parameter for MR images of the sequence not in said subset.

37. Apparatus as in claim 36 wherein said at least one display parameter comprises display brightness window width.

10 38. Apparatus as in claim 36 wherein the equation generated for window width is a quadratic equation defining a curve fitted to the manually set window width values of said subset.

39. Apparatus as in claim 36 wherein said at least one display parameter comprises display brightness window level.

15 40. Apparatus as in claim 39 wherein the equation generated for window level is a quadratic equation defining a curve fitted to the manually set window level values of said subset.

41. Apparatus as in claim 37 wherein said at least one display parameter comprises display brightness window level.

20 42. Apparatus as in claim 38 wherein the equation generated for window level is a quadratic equation fitted to the manually set window level values of said subset.

43. Apparatus as in claim 36 further comprising
means for automatically selecting said subset from the sequence in accordance with a predetermined algorithm.

25 44. Apparatus as in claim 43 wherein said means for automatically selecting automatically selects a subset comprising three images, one being at or

near a first end of the sequence, one being at or near the second end of the sequence and one being at or near the middle of the sequence.

45. Apparatus as in claim 36 wherein said means for manual setting includes movements of a user input device in direction and/or magnitude that
5 correspond to user-commanded changes in said at least one display parameter for a selected image of the subset.

46. A method for adjusting an MR image display parameter, said method comprising:

10 selecting at least one MR image from among a plurality of related MR images;
 setting a display parameter of the at least one selected MR image; and
 setting said display parameter for at least one other of said MR images
15 based on the set display parameter.